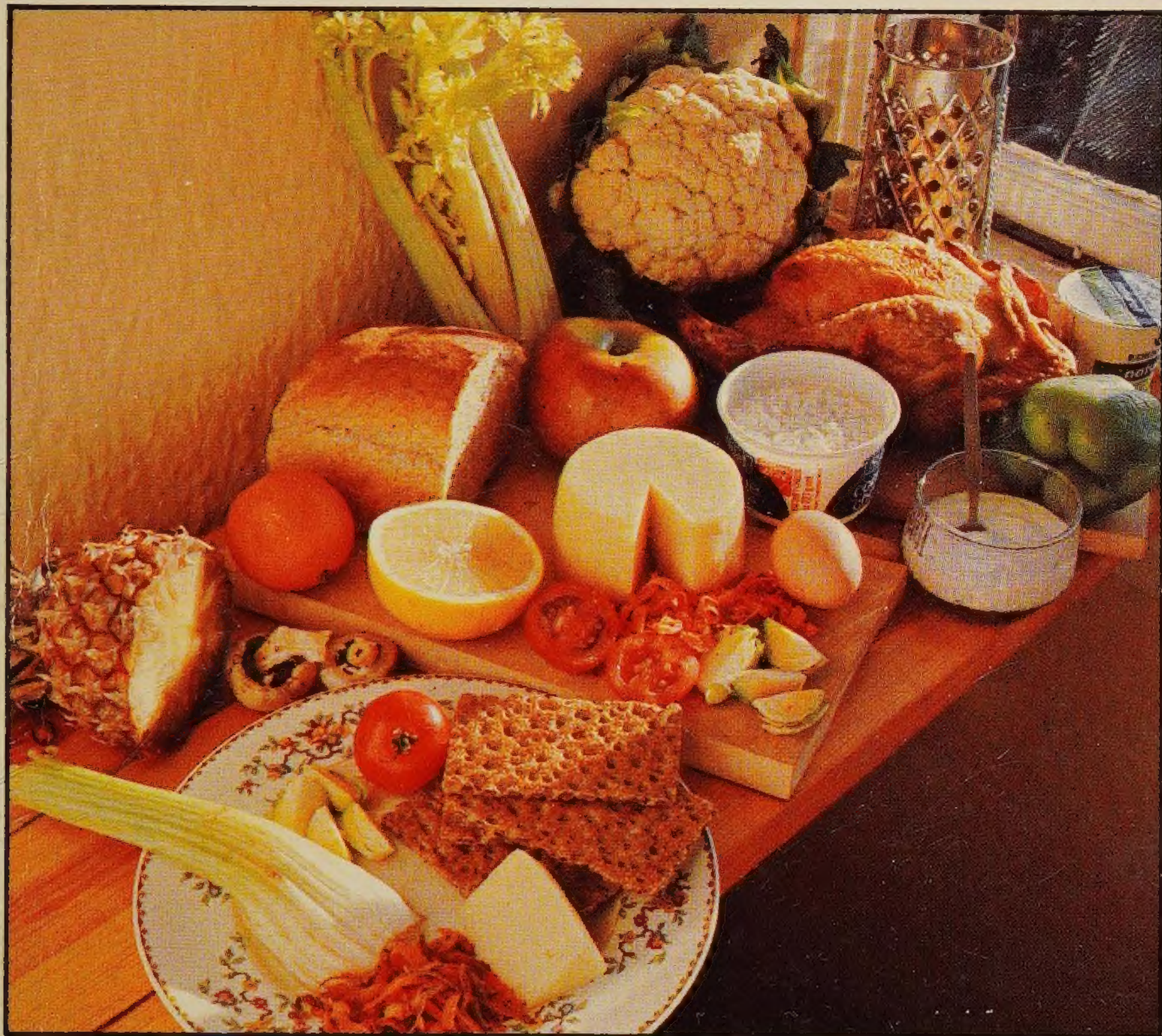


Slimming Naturally

With the High Protein Diet



*Safe and speedy weight reduction-
with pages of delicious recipes*
Alan Moyle N.D., M.B.N.O.A.

SLIMMING NATURALLY

For both slimmers and those who need to reduce the cholesterol content of their meals, here is a safe high protein diet. Included is a detailed seven-day diet plan plus suggested high protein/low cholesterol menus, and there is also a special recipe section.

SLIMMING NATURALLY

With the
High Protein Diet

by

ALAN MOYLE
N.D., M.B.N.O.A.



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THE HIGH PROTEIN DIET – 1863!

The term 'banting' has fallen into disuse. At one time, however, it was a popular word covering fasting, starvation diets and similar methods of losing weight. The term, in its original concept, did not mean fasting, but related to a system of dieting for obesity that was almost identical with the present-day 'high protein diet'.

In 1863, a pamphlet written by a William Banting described a regime for losing weight which was remarkably similar to that used today. In the pamphlet, 'A Letter on Corpulence Addressed to the Public', William Banting described how, after trying all sorts of methods of losing weight, he devised his own diet and lost thirty-three pounds in a few weeks and greatly improved his health.

The diet devised by Banting excluded, as far as possible, all sugars, starches and fats. Meat or fish and fruit were the major features of the diet. Liquids were reduced and the acidity of the protein was counteracted by an anti-acid concoction.

People who followed Banting's diet system, and there were many, had the same excellent results, which prompted William Banting to produce his pamphlet.

CHAPTER ONE

OBESITY – A HEALTH HAZARD

Obesity presents both a physical and a cosmetic problem. The impact of each aspect of obesity – whether physical or cosmetic – is bound to differ with each individual. This inevitably means that the approach to obesity will vary enormously from person to person. Very few people regard a growing^s waist-line with equanimity; to do so is foolish. It has been shown that an increase of twenty-five pounds above the normal average weight of a man of forty-five reduces his expectation of life by 25 per cent. Women are just as vulnerable as men, and in any case obesity accelerates the onset of degenerative diseases.

Obesity is a real health risk. It may have more cosmetic connotations for the younger or vainer person (there is nothing wrong with controlled vanity); and present more of a physical problem for the older person who is beginning to find mobility degenerating. The plain fact, however, is that excess weight is a health hazard with definite beauty overtones. 'Fat and forty' is not flattering! The damage, however, is not just to beauty and the figure. The blow to morale can be high, but the impact on health can be even more insidious.

OBESITY IN EARLY LIFE

What is apparent is that obesity is no longer just the problem of the middle-aged or older person.

Obesity in children is a rapidly extending phenomenon in Europe. In the U.S.A., child obesity was recognized as a danger by the late General Eisenhower, when he was President of that nation. General Eisenhower warned the parents of America about the menace of over-feeding, lack of exercise and misuse of the car that resulted in children being flabby and obese. Obesity that commences at a tender age tends to create obese adolescents and, unless checked, is a problem that persists in what must, on average, be a shorter life.

It is not surprising, therefore, that the necessity to lose weight begins at an increasingly earlier age. The fact that larger numbers of younger people are affected colours the approach to obesity. In effect, the cosmetic aspect of obesity becomes the most important factor in the desire to lose weight.

The compelling urge to be slim is not just a fashionable fad. Under modern conditions, extended affluence has raised two problems. The first is the temptation to over-indulge and the second is the reduction in physical effort due to modern labour-saving devices and the motor car. Furthermore, the dangers of obesity are more readily acknowledged. Obesity, however, is an insidious affair. Weight does not become a problem overnight; it is normally a slow process of gradually accumulating excess pounds. Once accumulated, however, the problem tends to become more acute. Excess weight creates a type of sluggishness that is not always recognized. Movements slow up and fat is not burnt up to the same extent. While the same calorie values may be ingested, the equivalent energy is not being

used. Quite simply, it means that input is exceeding output and so long as this process continues weight must rise.

SLIMMING METHODS

With so many younger people requiring to lose weight it is not surprising that the beauty aspect of slimming has tended to be stressed. The desire to be slim and beautiful is a laudable ambition. When the means of achieving this ambition also improve health and vitality, a double purpose is served. This is where some caution has to be observed.

All slimming diets, correctly followed, must result in a weight loss. The most extensive loss, of course, will be experienced where the excess overweight is more in evidence. This will also normally be the case where obesity coincides with the retention of fluids. The initial stage of any weight-reduction plan shows the most dramatic results and give the greatest encouragement and incentive to continue. Later, progress is slower and more tedious. This happens even when the most rapid and, on the whole, the most efficient means of losing weight is used. This method, of course, is controlled fasting and there is no doubt about its efficacy and its benefit to health as a whole. Fasting, taking ample fluids, can, in almost all cases, be carried out for at least two days. Beyond that, however, supervision and rest are essential.

Not everyone can afford either the time or money to undergo institutional treatment for weight reduction, despite the benefits that accrue from such treatment. The alternative, therefore, is to find an appropriate diet system which, even

if it involves more time, produces the desired result. These diets invariably revolve around a calorie-reduced system. It is obvious, too, that if a slimming diet can be devised that ensures energy for normal activity and retains the interest and attraction of food, it is more likely to be followed. Furthermore, since so many younger people need to slim, the less irksome the system the greater popularity it will gain.

POPULAR HIGH PROTEIN DIET

The high protein diet is an attractive alternative and one of the most efficient means of shedding excess weight. It is a very popular system, largely because it allows more 'popular' food to be consumed and yet produces a loss in weight. The high protein content foods are meat, fish, eggs and cheese – and these, of course, are the main attraction of the diet. But the very name of the diet supplies the clue to the problems that could arise from its adoption. Admittedly, the diet is for weight reduction only and, therefore, a temporary measure. But 'high protein' implies an imbalance in diet which, if carried too far, could have repercussions. A diet with a high protein content produces an acid urine, whereas a diet with a high fruit and vegetable content results in an alkaline urine.

Fasting also creates a temporary imbalance. The essential difference, however, is that controlled fasting is a natural method of cleansing the system. The weight reduction that arises from fasting is really a beneficial by-product arising from the cleansing process. The popularity of so-called 'health farms' arose because originally people went to such places to

be treated for all manner of ailments. In most cases, one of the main treatments was fasting and the 'slimming' effect was a natural result of the treatment. It is only in comparatively later years, when obesity became much more prevalent, that 'slimming' cures began to take such prominence. The essential cleansing of the system and treating the body as a whole, however, still pertains to the fasting method, whether it is used for cosmetic slimming or vital weight reduction.

The high protein method, however, is primarily for cosmetic slimming and may or may not be beneficial to the health of the body as a whole. A great deal would depend upon the age of the slimmer, the previous health history and for what period it would be essential to stay on the diet to lose the necessary amount of weight. These are variables which have to be taken into consideration, despite the fact that to be average – or even slightly below average – weight is infinitely better for health and vigour.

Everything, therefore, evolves around the main reason for losing weight. Is it for reasons of health, where weight reduction is a normal consequence of fasting or dieting? Or is it for cosmetic effects where loss of weight is the first consideration and improvement in health a secondary gain? The most desirable aim, of course, is to lose the excess weight and achieve an improvement in health.

Within certain limits, the high protein diet can be the answer, particularly when the main reason for slimming is a cosmetic compulsion and the diet is of relatively short duration. On the whole, it is the younger age group who tend to slim for primarily cosmetic reasons. This does not imply

that older people – particularly women – are not interested in cosmetic effects. Beauty of face and figure are the concern of all women, irrespective of age.

CHAPTER TWO

PROTEIN AND ITS EFFECTS

The high protein diet can be classified as essentially for cosmetic slimming. Any method, however, which brings weight down to normal must still be therapeutic in effect. Real health cannot exist in the obese state. Whatever the reason, therefore, for slimming, whether purely cosmetic or for serious health reasons, the shedding of excess weight is essential. On the other hand, even short periods of high protein diet can increase the health problems of the older person who suffers from rheumatism, arthritis or allied complaints and where the kidneys are weak.

THE ROLE OF PROTEIN

It is essential, therefore, to understand and appreciate the role of protein in diet. Proteins are of particular importance to the body because, apart from water, they are the chief constituents of all the soft tissue of the body. Special proteins have unique roles as structural and functional elements of cells and tissues. The collagen of tendons, actin and myosin of muscles, keratin of skin, the blood proteins and tissue enzymes, are all examples of special proteins. Protein, unlike fat, cannot be stored in the body and a protein deficiency soon shows its effects in splitting nails, lifeless hair and a dry skin. One of the advantages of protein, from the slimming aspect, is that it

takes longer to digest. It is, therefore, more satisfying than carbohydrates or, for that matter, the cellulose material of vegetables and salads.

Proteins are the main nitrogenous compounds in the animal and vegetable kingdom. Proteins are made up of a variety of amino-acids. The amino-acids are divided into essential and non-essential sections. The essential amino-acids are:

phenylalanine

methionine

leucine

valine

lysine

isoleucine

threonine

tryptophan

The non-essential amino-acids are glycine, alanine, serine, cystine, tyrosone, aspartic acid, glutamic acid, proline, hydroxyproline, citrulline, histidine, arginine, norleucine, and hydroxyglutamic acid. Histidine may be essential for children, but not for adults. Arginine is not an essential amino-acid for children. Most proteins contain all the amino-acids in varying amounts; some are deficient in one or more of the amino-acids. All contain carbon, hydrogen, oxygen and nitrogen, and sulphur is usually present. No two proteins are exactly alike because some have phosphorus and other elements like iodine and they have different physiological actions.

Because of their amino-acid constitution, proteins are essential to the diet. Proteins supply the nitrogen, sulphur and some of the phos-

phorus necessary for growth, maintenance, reproduction, repair, lactation and convalescence. It is possible to adjust to varying levels of protein intake and, providing the amino-acid content is sufficient to cover the requirements of the individual, the protein can be derived either from animal or vegetable sources. Practically all foodstuffs contain protein in a greater or lesser amount, but meat, fish and dairy produce are the principal sources in the normal diet. Furthermore, because animal protein takes longer to digest it is more satisfying and acceptable to the person slimming.

Intact cereal seeds supplement each other in supplying amino-acids and the protein derived from these sources is second in value to that supplied by meat, fish and dairy produce. The protein from nuts does allow normal growth and yeast is an acknowledged source of protein. The relevant factor for the slimmer, however, is that in the high protein diet, where meat, fish and dairy produce supply the bulk of the protein, less food is required and a weight reduction is possible. In effect, less calories are consumed.

ABSORPTION OF PROTEINS

The breaking-down of proteins into amino-acids commences with gastric digestion and consists mainly of the action of pepsin functioning in an acid medium. This produces proteoses and peptones, but not free amino-acids. It is in the small intestine that two enzymes, trypsin (a secretion of the pancreas) and erepsin (secreted by the tubules of the intestinal wall) act upon the ingested protein and break it down to amino-acids. The amino-acids are absorbed via the

epithelial cells covering the villi of the mucosa of the small intestine and from there they are passed on to the bloodstream and to the various tissues of the body, where they are required for growth, maintenance, reproduction or repair.

The tissues absorb only sufficient amino-acid needs for their requirements, the excess being taken up by the bloodstream and conveyed to the liver, where nitrogen is removed and converted to urea by a complex process or is re-used for forming another amino-acid. Protein contains about 6 per cent nitrogen. Nitrogen balance is the condition where the intake of nitrogen in the form of protein equals the output of nitrogen in the urine and faecal matter.

The main work of the kidneys is the excretion of the waste products of the body, chiefly as a nitrogenous substance – urea. Urea is the principal nitrogenous product of protein metabolism, though there are a number of other substances in the urine with an amino-acid origin. The urea is dissolved in water and with other nitrogenous substances, pigments and salts, expelled as urine.

Water accounts for 70 per cent of the body weight. The water content of food varies from 70 to 95 per cent, with fruit and vegetables having a higher water content than other articles of diet. A high protein diet, therefore, does imply a reduced water intake to some extent. At the same time, the high protein diet results in an increase of nitrogen. Nitrogen balance, therefore, has to be maintained by the increased action of the kidneys in expelling the waste nitrogen and sulphur contained in the additional protein consumed.

ACIDITY AND ALKALINITY

Fruit and vegetables are almost exclusively alkaline. Citrus fruit is acid, but with an alkaline reaction. Rhubarb is the notorious exception, with a high oxalic acid content. Proteins, however, are acid-forming. This is the explanation for an acid urine reaction from a high protein diet and an alkaline urine reaction from a diet with a high fruit and vegetable content.

The kidneys will expel the increased waste products of protein metabolism, but an increase in waste products of protein in the urine is not total and some acidity is reflected in the body tissues and fluids.

Acidity is a general term, since the blood in health is kept constantly alkaline by a complex chemical mechanism. There are degrees of alkalinity, however, and the blood and other secretions of the body can be either less alkaline or more strongly acid than normal. The urine, in a high protein diet, is more strongly acid and the blood tends to be less alkaline.

Imbalance in diet – i.e. the high concentration of acid-forming proteins in the high protein diet – must result in a lowered degree of alkalinity in the bloodstream. The imbalance is checked to some extent by the inclusion of alkaline fruit and vegetables in the diet. Nonetheless, there is a danger of increased acidity from the high protein diet if it is continued too long. A young and active person will derive a great deal of benefit from losing weight by the high protein method. A young person in normal health can adapt to the change and generally have efficient powers of elimination. But, in the older and less active

person, where the elimination of waste products via the lungs, skin, kidneys and bowels is not so perfect, there can be a concentration or accumulation of acid waste products which can have deleterious effects upon health. This is especially so in the case of rheumatic or arthritic subjects.

EXCESS PROTEIN AND ILL-HEALTH

Urine consists mainly of water, urea and sodium chloride. With an average of 100 grains of protein per day, the percentage of water and solids is more or less as follows: 96 per cent water, 4 per cent solids. Urea accounts for half of the solid matter. Uric acid, urates, chlorides, phosphates, sulphates and oxalates, etc., account for the other 2 per cent. Oxalates, phosphates and sulphates are mainly from vegetable foods. With a high protein diet there is a greater concentration of urates and uric acid and these are implicated in diseases of the joints such as rheumatism and arthritis. A high protein diet resulting in increased acidity of both the urine and the bloodstream, can increase the incidence of rheumatism in the less active or older person.

Experiments conducted over sixty years ago by Professor Russell H. Chittenden debunked the 'high protein' theory. Experiments carried out at Yale University on students and soldiers showed not only that the average person over-ate, but that the normal consumption of protein was excessive. The students and soldiers improved their health on a more restricted diet. Professor Chittenden claimed that 'health could be maintained much more satisfactorily on about 10 per cent protein in the diet than on 20 per cent'.

An almost identical conclusion was reached by Dr Lahmann, an eminent German doctor, even earlier. Dr Lahmann claimed that the over-consumption of protein was a vital factor in disease, especially of the joints. The excess of uric acid – a by-product of protein, especially meat – was, he believed, one of the main causes of rheumatism and allied diseases.

Arthur Blumenfield, in his book *Heart Attack*, published in New York in 1964, quotes many experiments revealing that over-eating of proteins and fats was responsible for many ailments and a great factor in the cause of coronary thrombosis.

In both world wars, when rationing reduced the average consumption of meat, animal fats and sugar, people were both slimmer and fitter. Bread, in both wars, was coarser and less refined, and this also improved health. Evidence in both wars showed that a lower protein was consistent with health.

CHAPTER THREE

THE OTHER FACTORS IN DIET

Protein, vital as it is, represents only one aspect of diet. Food comprises water, protein, carbohydrates, fats, vitamins and mineral salts. The main protein foods contain all the other elements in a greater or lesser degree. The same rule applies to the carbohydrates. The essential fact in diet, however, is that, for health, all the elements in diet are necessary in proper proportions. The cause of obesity is not just over-eating or lack of exercise; imbalance in diet is an almost universal factor. This imbalance normally arises from an excess of the high calorie carbohydrates. Input exceeds output. It is as simple as that.

CARBOHYDRATES

Carbohydrates are the 'energy' foods. The popular carbohydrates are bread, pastries, cakes, sugar and the cereal and pasta products. Like proteins, carbohydrates, especially in their natural state, also contain protein, vitamins, mineral salts and fats. But carbohydrates are usually refined. White flour and white sugar are common examples. In the refining process many of the vitamins and mineral salts are lost. White flour, for instance, is an almost pure starch product, rich in calories, but deficient in all other respects. Furthermore, because so much of the bran and all the germ of the wheat is removed,

white flour is an unsatisfying product and, to assuage hunger, it is only too easy to over-eat white flour products. The same rule applies to sugar, especially white sugar. Sugar, in its natural state, either as sugar cane, sugar beet or in fruit, is contained in a mass of cellulose, and often indigestible fibre, and it would be physically impossible to have an over-consumption of sugar. It requires, for instance, two and a half pounds of sugar beet to produce the average five ounces of sugar which is the normal daily sugar consumption.

FATS

Fats are – or should be – automatically reduced in any good diet. The high protein diet cuts down on fats for very good reasons. A certain amount of fat, of course, is essential in any diet, but fat can be avoided during any period of earnest slimming. Two ounces of fat will supply as much energy as four ounces of protein or carbohydrate. The energy of the heart muscle is largely dependent upon the energy supplied by fats. Some fat is produced from carbohydrates and a diet with 10 per cent of fat calories is more than adequate to maintain health. This allowance of fat is more than generous, even when including the fat from sources other than normal. What is essential, however, is that the fats absorbed should be of the unsaturated variety, i.e. from corn, safflower or sunflower oils, fish or fish oils, vegetable oil, almonds or walnuts.

EXCESS CHOLESTEROL DANGEROUS

Fats are derived from many sources and it is here that there is a distinct and very relevant division.

Animal fat and eggs have a high cholesterol value. An excess of cholesterol is involved in atherosclerosis, gall-stones and coronary thrombosis. Lean meat is recommended in the high protein diet because animal fat is recognized as a danger to health. It is for this reason, too, apart from any slimming effects, that fried food should be avoided in any dietary system.

The simplest guide to whether a fat is safe or not is that saturated fatty acids are solid at normal room temperature, while unsaturated fatty acids (the safe fat) are liquid, even at fairly low temperatures. Meat fat, butter, cream, cheese and eggs are the main saturated (high cholesterol content) foods, while sunflower oil, corn oil, fish and vegetable oils are the main unsaturated fats.

From the above, it will be noted that the high protein diet with its meat and egg content can also be a high cholesterol diet if care is not taken to remove all fat from meat. For the same reason, eggs can also contribute to a high cholesterol diet. Cheese, a valuable source of fat and protein, can have its dangers. Cottage cheese, however, has a low fat content and can be recommended. Even so, the high protein diet presents a possible danger to some older people. Young, active people can soon offset any risk of increased cholesterol intake, which, in any event, is only for a limited period. But the older person, whose metabolic rate is already possibly lowered and whose blood cholesterol level may be higher than normal, should either seek an alternative to high protein dieting for weight reduction or be quite ruthless in cutting away all the fat contained in meat.

VITAMINS AND MINERAL SALTS

Vitamins and mineral salts are contained in most foods. It is only when, as in the case of the refined carbohydrates – especially wheat, sugar, rice and other prepared cereals – the refining and marketing processes denude natural foodstuffs of the elements which contain the vitamins and mineral salts, that a loss of these becomes evident. Vegetables and fruit are, fortunately, usually rich in natural vitamins and mineral salts. Here again, however, modern cultivation, with the aid of fertilizers and pesticides, increases the risk of absorbing toxins, and ‘forced’ growth reduces the real food value of many vegetables and fruit.

The point has already been made that the refined carbohydrates do not assuage hunger and that it is a simple matter to over-eat and cause obesity. Too much reliance on the refined carbohydrates can cause obesity and a form of malnutrition at the same time. This, in fact, is what happens in thousands of cases. Vitamin and mineral deficiency culminate in lethargy, reduced resistance to common ailments and either to a false appetite or lack of enjoyment of food. The false appetite leads to obesity. In both cases, however, the lethargy results in decreased activity and a diminution in the supply of oxygen and removal of carbon dioxide. Oxygen is required to burn up the proteins and carbohydrates, etc. Weight reduction and the proper utilization of food is, therefore, dependent upon the good oxygen supply which activity encourages, but which obesity discourages.

The success of any slimming system lies in breaking the vicious circle of input exceeding

output. Once that circle is broken and the weight reduction engenders increased physical activity, then the process of reaching a normal weight can become self-generating.

A persistently imbalanced diet, especially one which is high in refined carbohydrates and deficient in vitamins and mineral salts, is one which produces imbalance in the body's function. A lowered metabolic rate and obesity is often the result. It is only when the imbalance in nutrition and metabolism is corrected that health can improve and weight be normalized.

In many cases, where the history of the imbalance is relatively short, as in younger people, a period on the high protein diet will achieve the necessary weight loss in a relatively pleasant manner. Immediately the weight loss has been achieved, however, and the vicious circle of obesity broken, then a balanced diet must be followed to maintain both the figure and health.

'WE ARE WHAT WE EAT'

The experience in nutrition gained from the effects of rationing and shortages in two world wars, plus experiments and matched comparisons on Westerners and various ethnic groups, has undoubtedly proved that the normal consumption of proteins and fats in the Western world is greater than is essential for health. Balance in diet requires rations more in line with those set out below:

Proteins	10 per cent
Carbohydrates	20 per cent
Fats	5 per cent
Fruit and vegetables	65 per cent

It is equally essential, since we are what we eat, that a balanced diet is produced from the best sources. Lean meat, fish, free-range chickens and eggs, and cottage cheese are the best providers of protein. Carbohydrates should be derived from natural wholemeal bread (preferably from organically grown stone-ground flour), wholegrain cereals, honey, molasses and non-white sugar. At least half the fruit and vegetables should be consumed in their raw state in the form of salads and fresh fruit. Raw food preserves the vitamins and mineral salts intact and requires thorough mastication, incidentally using up more calories in the process. The fats should be mainly the unsaturated or low cholesterol fats.

It will be recalled that the proteins tend to produce an acid urine, while fruit and vegetables result in urine that is alkaline. The relative acidity of food is an important factor in diet. The acid-forming foods, in the main, are the proteins and carbohydrates, while the alkaline foods are, of course, the fruit and the vegetables. Rhubarb is the main exception, since it is high in oxalic acid. Citrus fruits are acid, but have an alkaline reaction, while some – apples and grapes for instance – are sub-acid. It is important to note that the high protein diet results in an increased concentration of urates, uric acid and ketone bodies in the kidneys. This results in the ‘acid’ urine previously mentioned. While some water is drawn from the tissues to dilute the acids ready for expulsion in the urine, additional fluid is often required both to maintain fluid balance and to ensure that the acids are diluted and voided in the urine.

The high protein diet is obviously out of balance but, as a necessary expedient in the case of slimming, it has been demonstrated that high protein diets can be accepted. It is essentially, however, a 'cosmetic' diet with therapeutic side-effects. Fasting, on the other hand, is a therapeutic measure with cosmetic side-effects. It is important that the distinction should be realized because on it depends the decision as to whether the high protein diet is the best approach to the individual problem of obesity.

CHAPTER FOUR

CALORIES AND METABOLISM

Calories are units of energy. The calorie is the amount of heat required to raise one kilogramme of water one degree centigrade in temperature. The number of calories required varies with age, build, activity, sex, etc. A normal adult of average weight requires around 1,600 calories per day for the basic processes necessary to life, i.e. body warmth, chemical activities of the secreting glands, muscular movements of the chest in breathing and the beating of the heart. Activity increases the demand for calories. People in sedentary occupations require some 2,500 calories, those who do light muscular work need some 3,000 calories and in hard and continuous muscular activity the requirement could reach 4,000 calories per day.

INSURANCE WEIGHT TABLES

There are great variations in calorie requirements, not just from one person to another, but from day to day in the same person. All depends upon the energy consumed during the day. On the whole the tables given as a guide to average weight are on the high side. The same generosity is applied to calorie requirements. When insurance weight tables are taken into account it is better to be below the average weight for age and build than is generally

applied. Some life assurance figures for women are:

<i>Height</i>	<i>Small Frame</i> <i>lb.</i>	<i>Medium Frame</i> <i>lb.</i>	<i>Large Frame</i> <i>lb.</i>
4ft 11ins	104-111	110-118	117-127
5ft 0ins	105-113	112-120	119-129
5ft 1ins	107-115	114-122	121-136
5ft 2ins	110-118	117-125	124-135

As height increases, so about two to three pounds should be allowed for every extra inch in height.

The figures for men are:

<i>Height</i>	<i>Small Frame</i> <i>lb.</i>	<i>Medium Frame</i> <i>lb.</i>	<i>Large Frame</i> <i>lb.</i>
5ft 5ins	126-136	134-144	141-153
5ft 6ins	129-139	137-147	145-153
5ft 7ins	133-143	141-151	149-162
5ft 8ins	135-147	145-156	153-166

Weight increases in men average three to five pounds per inch of height. There is also a slight increase with age. The above figures for both sexes are with normal clothes and shoes on.

CALORIE INTAKE TABLES

Height, weight and age have a bearing on calorie intake. Younger and more energetic people require more calories, but for adults of twenty-five years and over the average daily calorie intake for height and weight is listed below:

<i>Women</i>		
<i>Height</i>	<i>Weight</i> <i>lb.</i>	<i>Calorie Intake</i>
5ft 0ins	95-100	1,200-1,500
5ft 1ins	95-105	1,250-1,575
5ft 2ins	100-110	1,300-1,650
5ft 3ins	103-115	1,380-1,725
5ft 4ins	108-120	1,450-1,800

<i>Men</i>		
<i>Height</i>	<i>Weight lb.</i>	<i>Calorie Intake</i>
5ft 5ins	123-137	1,650-2,080
5ft 6ins	130-143	1,720-2,150
5ft 7ins	133-148	1,780-2,250
5ft 8ins	140-154	1,850-2,320
5ft 9ins	143-159	2,000-2,500

A quick method of calculating calorie intake is to check the average weight for height and then multiply the number of pounds by twelve or fifteen. For an average weight of, say, 115 pounds, then that multiplied by fifteen would give 1,725 calories. What must be remembered, however, is that the lowest figure of the average is the one to be aimed at, both for weight and calorie intake. A better calculation, therefore, would be to accept the lower figures for weight as the ideal aim and calculate the calorie intake on the lower scale, using the figure of twelve calories to the pound instead of fifteen. Thus, 115 pounds by twelve would become 1,380.

METABOLISM

Obesity can only arise when calorie input exceeds output. The high protein diet is a low calorie diet. Its success, however, is not just dependent on reducing calorie intake. Metabolism is the term given to all those chemical and physical processes by which the body is maintained and by which energy is made available for various active purposes.

Metabolism is divided into two parts. The constructive processes – chemical and physical –

by which food materials are adopted for use by the body are known as *anabolism*. The destructive processes by which energy is produced with the breaking down of tissues into waste products is known as *catabolism*. *Basal metabolism* is the name given to the energy changes necessary for essential purposes such as the maintenance of body warmth, respiration and the beating of the heart.

It has already been noted that obesity can arise when the metabolic rate is low because of a reduced state of health. What is frequently overlooked, however, is the fact that the very act of eating requires energy. Catabolic processes are involved in the mastication, digesting and assimilation of food. The high protein diet can allow meat, egg (preferably hard boiled), salads and fruit. All these items require more mastication or a slower digestive process and demand more calories for the catabolic action in metabolism.

CATABOLIC ACTION VALUABLE

The catabolic action can be converted to practical purposes in any slimming diet. In fact the theory that certain foods require more 'catabolic energy' for their consumption than the calories provided in the food has been applied for some years by Dr H. Humplik in Austria.

Dr Humplik says:

For example, 250g. of sugar contain approximately as many calories as 2kg of apple; but the food value of that amount of sugar (27 large lumps or 41 small ones) is not that of 2kg of apples. The calorie content of foodstuffs is not a measure of their nutritive properties. The body is not a calorimeter; it does not regard calories as units of

energy. In my view it is important to know in what form proteins, carbohydrates, fats, vitamins and mineral salts are presented. There must be a difference if one absorbs the 80 calories of an egg between eating it hard boiled or in an omelette; so too between drinking the juice of a medium-sized orange and eating the fruit and likewise between taking fatty substance in hot clear soup and the same quantity of oil spread over a large helping of salad.

If one gives an overweight patient food containing 5,000 calories, for the assimilation of which 5,500 calories are required, then he is compelled to find the 500 calories by catabolising his body fat.

Examples are as follows:

Proteins Consumption of an omelet calls for very little saliva and the glands of the oesophagus are only slightly stimulated. Peristalsis of the gastro-intestinal tract is scarcely brought into play. The energy derived from the 80 calories is mostly anabolic. It is very different with hard-boiled eggs. During mastication there is a massive secretion of saliva (0.52 litres, but it can vary much more); the oesophagal glands are active, while a lot of work is undertaken by the gastro-intestinal tract. The 80 calories from the hard-boiled egg are insufficient for its assimilation, the deficit is made up from the tissues of the body and the result is catabolic.

Carbohydrates Most of the 110 calories from consuming the juice of an orange provide anabolic energy, the consumption of the entire fruit has a catabolic effect.

Fats The fatty substances absorbed from hot, clear soup provide anabolic energy. The same amount of fat spread over a salad requires for its assimilation additional energy obtained from the individual's tissue fat and the effect is catabolic.

The above, of course, does not mean that the

only essentials of a slimming diet are to eat hard-boiled eggs, oranges and salads with oil. The metabolic rate has to be increased as much as possible and foods that have a catabolic effect must be utilized in the diet.

The high protein diet can be rich in catabolic or near-catabolic foods. Meat makes more demands on the digestive processes, it requires more digesting and assimilating than many foods. Green salads, particularly those including raw cabbage, cucumber, peppers, celery, onion, radish and tomatoes, require a great deal of catabolic energy.

If the use of catabolic energy is kept in mind, it is possible to arrive at a high protein – low calorie diet which does maintain a degree of balance between the alkaline and acid elements in food. Furthermore, such a diet will help to increase the metabolic rate, a factor of great importance to many victims of obesity. The balance, of course, is achieved by the liberal inclusion of the alkaline fruits and vegetables – especially raw fruit and salads – along with the high protein meat, fish and eggs.

REFINED FOODS CREATE OBESITY

The catabolic theory in diet has been insufficiently emphasized. It does help to explain, however, why so many of the refined and denatured foods like sugar, white flour and products made from these items make obesity almost inevitable. Previous mention has been made of the fact that, if sugar was to be derived from natural sources, i.e. sugar cane or sugar beet, it would be almost physically impossible to have an over-consumption of sugar. The same

argument, to a great extent, extends to white bread, cakes and pastries. Wholewheat flour, with its roughage, makes heavier demands on the gastro-intestinal system than soft, puffy white flour used in white bread and normal cakes and pastries. It is possible, therefore, to easily have an over-consumption of the high calorie-low nutriment refined foods which, while looking attractive, do not efficiently satisfy. Furthermore, refined sugar actually depletes the system.

Refined, denatured foods can create an obese state in a person who is, in actual fact, suffering a degree of malnutrition. It is the excessive use of refined carbohydrates which leads to metabolic imbalance, lack of energy and obesity. Obesity itself causes fatigue, an excessive load on the heart (not forgetting the feet!) and stagnation of blood-flow.

Foods which demand more catabolic energy for their consumption do, on the whole, provide more protein, vitamins and mineral salts. It is the concentrated anabolic foods – sugars, white-flour products, refined cereals, chocolates, etc. – which form such a threat to the figure and health.

Calories, of course, should not be dismissed. It is still necessary, when slimming, to reduce the calorie intake to an acceptable level. But calories are found in all food. What is essential is to choose the lowest calorie foods which contain the maximum amount of vitamins and mineral salts, the necessary protein and, where possible, the best type of fat. This can be achieved, and the high protein diet outlined in this book will concentrate on those items which provide the necessary qualities for figure and health.

CHAPTER FIVE

THE CALORIE CHECK

It is virtually impossible, in normal life, to assess with any accuracy the actual calorie requirements. Around 1,000 calories per day for men and 1,450 for women is regarded as the basic metabolic rate. Consumption of food, particularly protein, raises the metabolic rate. The energy required for routine activity must be added to the basic rate. Even sitting quietly and resting takes 15 calories per hour, walking gently takes 115 calories per hour, and climbing stairs consumes 1,000 calories per hour. Typical calculations for calorie requirements can vary from 1,900 for a woman doing light sedentary work to 5,000 for a man performing heavy tasks.

What can be helpful is to have a rough guide as to calorie requirements:

Men

8 hours work of medium activity	1,320 calories
8 hours sleep	500 calories
8 hours walking, sitting, travelling	1,180 calories
<i>Total</i>	3,000 calories

Women

8 hours household work	900 calories
8 hours sleep	700 calories
8 hours walking, sitting, etc.	500 calories
<i>Total</i>	2,100 calories

From the above it is obvious that those who sleep or lie in bed for more than eight hours will use up less calories. Those who sleep or rest for less than eight hours will burn up more calories. Similarly with exercise: the more active person will use more calories and the indolent type will consume less calories. Any calorie intake above actual requirements results in obesity.

CALORIE COUNT

The high protein diet reduces calorie intake while raising the metabolic rate. The following calorie count of the food used in the diet gives some indication of how the calorie reduction is arrived at. It should be remembered, too, that many of the foods demand a higher output of energy – the catabolic element – in their digestion, assimilation and absorption.

	<i>Quantity</i>	<i>Calories</i>
<i>Meat</i>		
Beef (cooked)	3 oz. (75g)	260
Steak (cooked)	3 oz. (75g)	310
Rib beef (roast)	3 oz. (75g)	290
Lamb (chop)	4 oz. (100g)	480
Lamb (roast leg)	3 oz. (75g)	310
Bacon (2" slices)		100
Tongue	4 oz. (100g)	230
Ham	3 oz. (75g)	340
Veal cutlet	3 oz. (75g)	180
Liver	2 oz. (50g)	120
Chicken	3 oz. (75g)	120
Turkey	3 oz. (75g)	180
<i>Fish</i>		
Cod	4 oz. (100g)	90
Flounder	4 oz. (100g)	80
Halibut (fillet)		230
Herring (1 small)		210
Salmon	3 oz. (75g)	120

<i>Fish</i>	<i>Quantity</i>	<i>Calories</i>
Sardines	3 oz. (75g)	180
Haddock (1 fillet)	4" x 3" x $\frac{1}{2}$ "	160
Egg	1 medium-size	80
Brewer's yeast	1 tablespoonful	22
<i>Cheese</i>		
Cheddar	1 oz. (25g)	100
Cottage	1 oz. (25g)	30
Cream	1 oz. (25g)	100
Processed	1 oz. (25g)	100
<i>Milk</i>		
Whole	1 cupful	160
Non-fat	1 cupful	90
Goat's	1 cupful	160
Buttermilk	1 cupful	90
Yogurt	$\frac{1}{4}$ pint (150ml)	150
<i>Fats</i>		
Butter	$\frac{1}{2}$ oz. (10g)	100
Margarine	$\frac{1}{2}$ oz. (10g)	100
Salad oil	1 tablespoonful	80
Mayonnaise	1 tablespoonful	90
<i>Cereals and Bread</i>		
Bran flakes	1 cupful	115
Corn flakes	1 cupful	95
Puffed wheat	1 cupful	45
Wheat germ	1 cupful	240
Wholewheat bread	1 slice $\frac{1}{2}$ " thick	55
Rye bread	1 slice $\frac{1}{2}$ " thick	55
Crispbreads	2" x 3 $\frac{1}{2}$ "	25
<i>Vegetables</i>		
Carrots (raw, grated)	1 cupful	45
Beetroot (raw, grated)	1 cupful	55
Parsnip (cooked)	1 cupful	90
Turnip (raw)	1 cupful	45
Turnip (cooked)	1 cupful	40
Radishes (raw)	5 small	5
Potato (baked)	1 medium-size	95
Potato (boiled)	1 medium-size	120
Asparagus (small spears)	1 cupful	35
Marrow	1 cupful	35
Cabbage (raw, shredded)	1 cupful	25
Cabbage (cooked)	1 cupful	40

<i>Vegetables</i>	<i>Quantity</i>	<i>Calories</i>
Sprouts (raw, shredded)	1 cupful	45
Sprouts (cooked)	1 cupful	60
Celery (raw, chopped)	1 cupful	18
Chicory (raw)	$\frac{1}{4}$ small head	3
Watercress (raw)	$\frac{1}{2}$ cupful	5
Endive (raw)	1 lb (450g)	90
Lettuce (raw)	4 small leaves	7
Onions (raw)	1 2 $\frac{1}{2}$ " dia.	50
Onions (cooked)	1 cupful	80
Spinach (raw)	4 oz. (100g)	22
Spinach (cooked)	1 cupful	45
Sauerkraut	1 cupful	30
Chives (chopped)	1 tablespoonful	4
Broccoli (raw)	1 cupful	25
Broccoli (cooked)	1 cupful	40
Cauliflower (raw)	1 cupful	25
Cauliflower (cooked)	1 cupful	30
Sweet corn (cooked)	1 5" ear	85
Cucumber (raw)	2 slices	60
Mushrooms (cooked)	1 cupful	30
Peas	1 cupful	110
Green pepper (raw)	1 medium	15
Tomatoes (raw)	1 medium	30
<i>Fruit</i>		
Apples (raw)	1 medium	35
Apricots (raw)	1 medium	20
Avocado pear	half	280
Banana	1 medium	130
Cherries (raw)	1 cupful	90
Pineapple (fresh)	1 medium slice	50
Figs (dried)	1 large	55
Peaches (raw)	1 medium	45
Grapes	40 grapes	100
Pears (raw)	1 large	100
Plums (raw)	1 2" dia.	30
Prunes	1 large	25
Raisins (dry)	1 cupful	430
Orange	1 medium	70
Grapefruit (canned)	1 cupful sections	80
Grapefruit (fresh)	$\frac{1}{2}$ grapefruit	20
Lemon	1 2" dia.	20

<i>Fruit</i>	<i>Quantity</i>	<i>Calories</i>
Strawberries	1 cupful	55
Raspberries	1 cupful	70
Loganberries	1 cupful	90
Cantaloupe melon	$\frac{1}{2}$ melon	40
Honeydew melon	1 2" x 7" slice	50
Olives	10 large	70
<i>Juices</i>		
Orange	1 cupful	110
Apple	1 cupful	120
Grape	6 oz. (175g)	120
Grapefruit	1 cupful	130
Pineapple	1 cupful	120
Tomato	1 cupful	50
Lemon	1 tablespoonful	4
<i>Sweetenings</i>		
Sugar	1 tablespoonful	110
Honey	1 tablespoonful	60
Jam	1 tablespoonful	55
Molasses	1 tablespoonful	43
<i>Drinks</i>		
Plain tea or black coffee		zero
Consomme	1 cupful	10
Bouillon	1 cupful	10
Beer	8 oz. (225g)	110
Gin, whisky, vodka	1 oz. (25g)	75
Cola drinks	6 oz. (175g)	80

The above is a guide only and the proportions are average for one person. It will be noticed that, on the whole, when vegetables are raw, as in salads, the caloric content is less. Baked potatoes contain fewer calories than boiled. Fried potatoes, of course, take no part in the diet. Scrambled or fried eggs contain more calories than hard-boiled eggs and the latter are preferable both from the calorie and catabolic features. The same reasons apply to whole oranges, which are better than orange juice.

Condiments such as salt, pepper, pickles, etc., are best avoided in any diet. Sufficient salt is

obtained from that normally used in cooking. Artificial sweeteners of any type should never be employed. A little honey is better than any artificial sweetener. Sugar in cooking should be strictly limited.

Cider vinegar or wine vinegar mixed with sunflower oil can be recommended for salad dressing. The salad dressing can have chives, parsley, mint or other herbs added to it for flavouring. Salad dressing, as above, adds piquancy to salads while having no appreciable effect on the calorie count.

LIBERAL FLUID INTAKE

The high protein diet requires the balancing effect of all the alkaline fruits and vegetables – especially salads – to minimize acidity. The diet also requires a fairly liberal intake of fluid to dilute and remove the acids left over from the protein intake. But tea and coffee, although zero rated as regards calories, are acid-forming stimulants and both should be used with discretion. The best drinks, in fact, are the alkaline *natural* fruit juices. Apple, pineapple, grape, lemon and orange juices are safer and more health-giving. These fruit juices, however, should always be diluted. Clear vegetable soup can also be included because of its alkaline effect.

The alcoholic drinks, including cola-type drinks, *are not recommended*. Their inclusion is merely to satisfy the interest of those who erroneously assume that alcoholic beverages are relatively free from calories.

It is very important to maintain a high alkaline content in the high protein diet to offset the acidity of the protein foods. Diluted natural fruit

juices and clear vegetable soups help to provide the alkaline medium to dilute and remove the acid end-results of protein metabolism. Tea, when taken, should be weak and *fresh*. One of the best methods of drinking tea is to make the tea in one teapot and then pour it into another without the leaves. Tea bags offer the best solution since they can be quickly removed. This reduces the tannin content of the tea which increases the longer the leaves are left in the teapot. It is the tannin in tea and the caffeine in coffee which is both stimulating and acid-forming.

Variations in points of origin in different foods must make some differences in calorie count. These, however, are marginal and the foods listed are mainly those which can be used in the high protein diet. A personal check, therefore, can be made to verify the calorie content of any food that could be used for preference or as an alternative in the diet plan. One of the virtues of the high protein diet is that there is a fairly liberal choice of foods and the diet need never be dull. It is this factor which renders it easier to follow.

CHAPTER SIX

INCREASING RESULTS FROM THE HIGH PROTEIN DIET

Dieting, even when it is made as attractive and bearable as possible, does involve a certain amount of discipline, organization and work. The entire object of dieting is to achieve the maximum possible results in the minimum of time. Some of the best effects of the diet, however, can be lost by not carrying the entire mechanism of selective feeding to its logical conclusion.

It is not sufficient just to choose the right foods in their correct proportions. It is important to secure the best possible advantage from every item of food consumed. Any obese person will lose weight when calorie intake is below calorie output. The fact remains, however, that by not extracting the maximum benefit from the diet, the restrictive measures have to be prolonged.

Metabolism, it has been noted, includes all bio-chemical processes within cells and tissues which are concerned with their building up, breaking down and functioning. That part of metabolism concerned with building up is anabolism and that of breaking down is termed catabolism. The processes are concurrent and intimately bound up together, but growth occurs when anabolism exceeds catabolism and a weight loss arises when the catabolic process is running at a faster rate than the anabolic. When the two processes are balanced, body weight

remains stationary.

The catabolic energy required to deal with food varies with the energy needed to break down and make use of that particular food. The high protein diet includes many items of food which require very efficient mastication and make heavier demands on the digestive and assimilative functions. The catabolic factor can even exceed the anabolic, as in the case of eating an orange or just drinking the juice. The influence of the catabolic element in diet should not be underrated.

FOOD SHOULD BE CHEWED

Mastication involves both muscular and glandular activity which, of course, means using up energy. Mastication is, or should be, the first step in the chain of events leading to the proper utilization of ingested food as suitable nutriment for the tissues and secretions of the body. A remarkable feature of obesity is the frequency with which it is associated with a disregard for adequate mastication. Food that is not properly insalivated and chewed, especially the carbohydrates, fails to satisfy the appetite and delays the digestive process. The great temptation, also, is to consume far more of the high calorie foods than are actually required.

The high protein diet helps to eliminate, or at least reduce, the problems caused by inadequate mastication. Meat and fish are difficult to swallow without chewing. Raw fruit and raw salads require the same physical effort of mastication. The typical examples of hard-boiled eggs and whole oranges is a reminder of the catabolic element in dieting.

Enjoyment of food should lie not just in satisfying hunger, but in the look, smell and taste of food. This enjoyment can be profitably prolonged by spending more time in actively chewing the food. Extended mastication reduces the risk of a 'false' appetite leading to obesity. Equally important is the fact that the masticated food reaches the stomach in a correct form and avoids delay in the gastro-intestinal tract.

Distension of the stomach due to delay in the digestive function has considerable side-effects. Persistent dilation tends to spread over the whole abdominal area and the abdominal walls become stretched and flabby. In extreme cases, visceroptosis (dropping of the abdominal organs) takes place and fluid tends to collect in the tissues, causing an obese look. Stagnation and congestion of the abdominal organs is the arch enemy of the 'slim look'. Excessive use of salt is not the only factor in fluid retention. While fluid retention is a feature in many cases of obesity, particularly in the more adult obese person, lymphatic congestion is often present. This congestion, as a rule more apparent in the lower limbs and abdominal area, is a by-product of stagnation. Reduction in muscle tone and circulation, affecting the whole area from the waist to the thighs, is as unnecessary as it is unsightly. Lymphatic circulation is dependent upon muscular action, as it is only by contraction of a muscle or limb movement that the lymph will flow.

Any slimming diet, whether it is a high protein or a low calorie diet, or a combination of both, requires the full catabolic effect of efficient mastication to help assuage natural hunger, to

extract the maximum nutriment from ingested food and to avoid delay and congestion in the gastro-intestinal system. In this respect the high protein diet does have some advantages.

DIGESTION, ABSORPTION AND ASSIMILATION

Digestion, absorption and assimilation are the processes by which food is incorporated by the body. Digestion is composed of three distinct parts: the salivary digestion (where mastication is the important element), gastric digestion and intestinal digestion. The gastric element in digestion includes the action of the gastric juices on the food, plus the churning movements of the stomach walls which have the effect of thoroughly mixing the ingested food with the gastric juice.

Intestinal digestion occurs when the food plus gastric juice, called 'chyme', is passed from the stomach into the small intestine. In the small intestine the chyme is subjected to the action of bile, pancreatic juice, intestinal juice and bacteria. Bile and pancreatic juice turn the semi-solid chyme into a creamy consistency called 'dhyle'. Bile has an important function in digesting fats. The pancreatic and intestinal juices contain ferments which break down the various constituents of the ingested food into suitable elements for the different cells of the body. Thus proteins are broken down into amino-acids, the carbohydrates into monosaccharide glucose and the fats into fatty acids and glycerine. Food, therefore, is broken down into the state where it can be absorbed and assimilated.

Food materials are almost exclusively absorbed by the small intestine, the residue or waste being passed on to the large intestine. Contraction of the muscular coat of the intestine propels the indigestible food residue, along with various waste substances excreted from the liver and intestinal walls, till it is expelled from the body in bowel action.

Sugars, salts and amino-acids pass directly into the small blood vessels of the intestinal wall, but fat is first taken up in the form of a fine emulsion by the lymph vessels called lacteals before passing into the bloodstream.

Assimilation is a slower process and occurs when the various cells extract their particular requirements from the blood circulating through the organs. The bulk of the nutriment is assimilated by the muscles for heat production, work and repair, though some is stored for future use. During work and repair, etc., chemical changes produce waste products which have ultimately to be expelled.

BILE

The processes by which food is digested, absorbed and assimilated do require a great deal of energy and physical effort. Bile, for example, is partly a secretion of the liver and partly an excretion of waste material thrown out by the liver. Bile is constantly discharged by the liver but the discharge is considerably increased after a meal. Both the secretions and excretions contained in bile are an essential part of the chemical processes of the body.

Bile has a special function in the digestion of fats. The absorption of nutriment from food

passing down the bowels is a further task of bile. Excessive decomposition of food material in the intestines is prevented by the action of bile and it assists bowel movements.

In normal circumstances about half to one litre of bile is secreted daily, though the greater part of this is reabsorbed by the body. The flow of bile, however, is largely dependent on the muscular movements of the abdomen in breathing. If the breathing is shallow there is a lack of stimulus to the liver and less bile is expelled. Stagnation of the bile is a common feature of all forms of obesity.

If the best results are to be achieved from the high protein diet it is imperative to have the entire gastro-intestinal tract working at its highest peak of efficiency. This means devoting adequate time to mastication and reducing stagnation and congestion in the intestinal tract by normalizing the flow of bile and encouraging bowel movements. Mastication is a simple process, perhaps too simple, and hence often neglected. For the other processes it is necessary to acquire the art of abdominal breathing.

ABDOMINAL BREATHING AIDS CONSTIPATION

Abdominal breathing is the main method of expelling bile from the liver; and bile is essential in the digestion and absorption of fats and for the absorption of vitamins D and E. There is, however, another important factor relating to fat in the high protein-low calorie diet. Protein, to some extent, stimulates the metabolism and this, combined with the reduction in carbohydrates, tends to 'melt' the fat stored in the tissues. The

released fat is taken up by the blood and transported to the liver where it is broken down into bile salts and acids. Unused fat is again poured into the blood as ketone bodies which are carried to the kidneys and expelled in the urine. Two things are required during this process relating to the burning-up of fat. The first is a free flow of bile; the second is a good supply of oxygen. Abdominal breathing ensures both.

Abdominal breathing has extensive advantages in strengthening the abdominal muscles and viscera and in promoting healthy bowel activity. The latter is a very important factor in the high protein diet where meat and fish are used to supply the protein. Both meat and fish, especially meat, take longer to digest and have a higher putrefaction rate than other foods. The removal of the waste products of both items should not be delayed by ineffective bowel movements. Constipation can create an unnecessary retention of waste products and some degree of auto-intoxication, a factor which must be guarded against in the high protein diet.

The danger of sluggish bowel activity is somewhat reduced because the high protein diet contains the bulky cellulose material of salads and fruit. This cellulose material encourages normal bowel movements. Nevertheless, digestion, bile flow and bowel activity are promoted and largely dependent upon muscular activity in the abdominal area. A slim abdomen can never be obtained so long as any intestinal stasis persists and stagnation distends weakened abdominal muscles.

Figure control should not depend upon artificial aids which disguise the 'bulge' but do

nothing to remedy the real defect. The real answer is to control the abdomen by natural muscle action which, at the same time, stimulates and strengthens the digestive function and provides oxygen for the nerves and tissues.

Abdominal breathing can be practised in several ways. Two methods are outlined, but it must be emphasized that it takes time and patience to acquire the art of training the abdominal muscles to function correctly. Abdominal breathing stimulates the heart, increases lung capacity and speeds up the flow of the blood. When the abdominal muscles are actively contracting and relaxing, as in this form of breathing, the bowels are subjected to kneading and squeezing. It is this action which has such a beneficial effect upon the bowels.

ABDOMINAL BREATHING METHODS

Before commencing breathing exercises the nose and throat should be cleared and restrictive clothing removed. The first method is as follows.

Lie on the floor with the knees raised and the head and neck supported on two pillows. Place a book on the upper part of the abdomen and rest the hands on the book. Commence by gentle inspiration through the nose, followed by concentrated expiration. Expiration should be prolonged as long as possible, and the book should be pressed down towards the spine as the muscles relax. Concurrently, the ribs should move inwards and down, so as to minimize the resultant rise of the lower chest. Inspiration is then performed gently through the nose. During this phase, the book should be felt to rise as the diaphragm contracts. The only active movement

should be the contraction of the diaphragm; the upper abdomen and lower part of the chest should be relaxed. Only a passive outward movement of the chest should be noted as the diaphragm draws air into the lower part of the lungs. With a one-minute interval for rest in between, the exercise should be repeated twenty times.

The second way to learn abdominal breathing is to sit in a chair with the feet nine inches apart. Lean right over, arms between legs, and grasp the rung or the ends of the front legs of the chair. This position fixes the shoulders and prevents them from rising when a deep breath is taken. In this position, inhale and exhale fully, when it will be found that the only breathing possible is abdominal. Repeat three or four times, then pause and repeat another three or four times before pausing again. Commence with ten minutes and gradually build up to twenty minutes at least once a day.

Abdominal breathing exercises are one of the surest ways of tightening up flabby muscles and reducing the effects of stagnation in the abdominal viscera. It is time well spent and enhances the effect of dieting in both controlling the figure and improving the general health. Whether the diet is a high protein diet or not, the need for abdominal breathing is always present. The other important factor is that, with a little extra effort, better and more lasting results can be gained in a shorter time. Time devoted to the mechanics of digestion, absorption and assimilation is never wasted. On the contrary, it produces a slimmer figure and a healthier body in a shorter period.

CHAPTER SEVEN

THE SEVEN-DAY DIET PLAN

The following diet system is set out for one week. There is no reason, however, why it should not be carried out for two weeks. Alternatively, it can be adopted for one week, reverting to a diet which contained less protein and a little more (not much more) carbohydrate but the same amount of salads and fruit. In other words, eat a little less meat and fish but add two extra slices of bread and a biscuit or two each day for a week and then return to the high protein diet for a further week.

When losing weight, the greatest loss arises in the first few days. The weight loss, however, can show tremendous variations in different people – even when they are on the same diet. On an average, however, the loss in the week on the high protein diet should not be lower than three pounds and could be as much as ten pounds. When the weight loss is slower, it is advisable to continue for a further week without interrupting the diet, making it a fourteen-day plan instead of a seven-day. Where it is essential to lose stones rather than pounds, the seven-day plan will obviously have to be extended to fourteen days. After fourteen days, it would be advisable to reduce the protein as afore-mentioned for two weeks and then have another fourteen days on the high protein diet.

When the weight problem has assumed more than usual proportions, the loss on the high protein diet is correspondingly larger. Despite this, the fourteen-day period which would be normally advised for a person who has to lose twenty pounds or more, may not be sufficient in some cases. The encouraging factor, however, is that the weight loss increases mobility, reduces the burden on the heart, and gradually lessens the dilation of the stomach. The metabolic rate is increased with the gain in mobility and gives greater scope for achieving the desired weight.

Most women will have observed that, during menstruation, body weight increases. This is due to the fact that, during the period, fluid tends to be retained. Young women, therefore, should not be dismayed when their weight loss is reduced or there are fluctuations in weight during menstruation. The diet presents no problems during menstruation, and it can be carried out at any time. It is important, however, that it should be carried out in its entirety so that the alkaline salads and fruit can balance the high protein content to some extent. It is also important to place more emphasis on the alkaline fruit juices than on acid-forming tea or coffee.

People suffering, or inclined to suffer, from gout, arthritis, severe rheumatism, etc., should not adopt the high protein diet without prior consultation. Only if they are content to reduce the protein content should they embark on the diet. This would, to some degree, minimize the slimming effect of the diet. It would, however, increase the therapeutic effect while still reducing weight, albeit at a lower pace. Any loss of excess weight, however, is therapeutic.

Day 1*Breakfast*

2 raw apples
2 thin slices toast and
butter
Hard-boiled egg

Lunch

Orange
3 oz. (75g) cold meat
Raw salad
2 crispbread
biscuits
Small pat
butter

Dinner

$\frac{1}{2}$ grapefruit or 1
slice of pineapple
Lamb chop with spinach
Carrots
Tomato salad
3 oz. (75g) plain yogurt

Day 2*Breakfast*

Raw apple
2 rashers bacon and
grilled tomatoes
2 thin slices toast
and butter

Lunch

Orange
Raw salad
Baked potato and
sunflower oil
3 oz. (75g) cottage
cheese

Dinner

Steamed fish (cod,
hake, sole or halibut)
Cauliflower
French beans
20 grapes or
slice pineapple
3 oz. (75g) plain yogurt

Day 3*Breakfast*

$\frac{1}{2}$ grapefruit
Mushrooms on toast
with grilled tomato
1 slice toast and
butter

Lunch

Orange
Salad with
3 oz. (75g) cold meat
(ham, chicken,
turkey, tongue)
2 crispbread biscuits
3 oz. (75g) plain yogurt

Dinner

$\frac{1}{2}$ grapefruit
3 oz. (75g) stewed liver
with one onion
Spinach or sprouts
Carrots or pepper
3 oz. (75g) plain yogurt

Day 4*Breakfast*

2 raw apples
One kipper
2 thin slices toast
and butter

Lunch

Slice pineapple or
orange
Salad with one slice
ham and 2 oz (50g)
cottage cheese
2 crispbread biscuits
Pat of butter
3 oz. (75g) plain yogurt

Dinner

$\frac{1}{2}$ grapefruit
3 oz. (75g) chicken or
turkey or stewed
beef
Celery or leek
3 oz. (75g) plain
yogurt

Day 5*Breakfast*

Orange or apple
Hard-boiled egg,
sliced on toast or
as open sandwich
(use two slices
wholemeal bread
or toast and little
butter)

Lunch

Orange
Sticks celery
2 oz. (50g) cottage cheese
3 medium sardines
Raw salad
2 crispbread biscuits
Pat of butter
3 oz (75g) plain yogurt —

Dinner

½ grapefruit or
slice pineapple
3 oz. (75g) roast beef or
lamb
Grilled tomato
French beans or peas
Carrots
3 oz. (75g) plain yogurt

Day 6*Breakfast*

Orange
Poached egg with
grilled tomato
2 thin slices toast
and butter

Lunch

Orange or slice
pineapple
4 oz. (100g) cold meat
(ham, chicken,
turkey or tongue)
2 crispbread biscuits
and butter
3 oz. (75g) plain yogurt
with slices unpeeled
cucumber

Dinner

½ grapefruit
Steamed fish
(medium plaice, sole,
halibut or flounder)
Green vegetable
Carrots or pepper or
celery or marrow
3 oz. (75g) plain yogurt

Day 7*Breakfast*

Apple
Haddock or kipper
or 2 rashers bacon
with grilled tomatoes
2 thin slices toast
and butter

Lunch

Orange
3 oz. (75g) diced ham
mixed with green
pepper, cheese and
onion (hot or cold)
Salad
2 crispbread biscuits
and butter
3 oz. (75g) plain yogurt

Dinner

½ grapefruit
Grilled steak
Onions or tomatoes
Tomato salad
3 oz. (75g) plain yogurt

The above meals allow between, 1,350 and 1,650 calories per day. The proportions are average for a normal person. Allowance is also made for a salad dressing of sunflower oil, cider or wine vinegar and herbs. It is essential, of

course, to thoroughly insalivate and masticate all food consumed in order to gain the maximum advantage from it. Digestion, assimilation and absorption is a catabolic process which absorbs calories and helps weight reduction. More than that, it can further weight loss by decreasing the amount of food required.

The salad, fruit and vegetable content of the diet supplies the required alkaline medium and provides the best type of roughage for bowel activity. The high protein diet will, by correcting previous faults in diet, almost certainly alleviate or cure any constipation that previously existed. In fact, a surprising number of common complaints will clear up while the weight decreases.

LIQUID REQUIREMENTS

A further, very relevant point in the high protein diet, is that liquids are required to assist the removal of acids from the kidneys. This is just the point where the salads, fruits and vegetables assume further importance. All food contains a considerable amount of water. The water content of salads, fruit, and vegetables can vary from 80 to 95 per cent. This, therefore, is a substantial amount of fluid. Moreover, it is one of the best types of water, being superior to tap water.

To some extent, the water content of the diet reduces the need for constant drinking. The diet plan shows no drinks, for the reason that fluids are best separated from meals. Drinks, therefore, are advised as follows:

<i>First thing</i>	Large glass of diluted fruit juice, preferably tepid or warm
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<i>With breakfast</i>	One cup of weak tea or caffeine-free coffee. Only fat-free milk should be added. No sugar; a little honey only, if desired.
<i>Mid-morning</i>	Yeast extract and water or diluted fruit juice or diluted tomato juice or caffeine-free coffee. A small black coffee could be allowed or a cup of fresh <i>weak</i> tea.
<i>Tea</i>	One large cup of weak tea (only fat-free milk) and honey for sweetening, if the latter is necessary.
<i>After dinner</i>	Small black caffeine-free coffee.
<i>Before retiring</i>	Glass of diluted fruit juice.

Should the above not fully meet the demands for liquid, additional diluted fruit juices, clear vegetable soup or diluted tomato juice can be taken as desired. These drinks, however, should be *sipped* either some time previous to a meal or well after a meal. The need for fluid varies with activity, the environment, (heated rooms, hot days, etc.), warm drinks for cold days, etc. No hard and fast rules can be made on the personal needs for fluid – Nature usually provides its own answer to this problem.

Fluid is not weightless. Unnecessary fluid means either additional work for the kidneys or retention within the tissues. Allowance,

therefore, has to be made for the water content of food when the question of drinking is under consideration.

Salt causes fluid retention. Seaweed or kelp tablets can be taken to help reduce fluid retention. Normal food supplements should not be required, but the seaweed tablets can help. Salt at any time should be limited to that already contained in food and that used in cooking. Other condiments – pepper, mustard, pickles, etc. – should be avoided. Cider or wine vinegar and sunflower oil should be the only additions. Extensive use of herbs, however, is recommended.

There is no rigid need to follow the precise placing of the meals. The lunch and dinner meals are freely interchangeable to meet personal convenience. Thus, if it were more convenient to have the cooked meal at lunch and the salad meal in the evening it would make no difference to the programme. The evening meal, whether the salad or cooked meal, should never be too late. Furthermore, if overtired or suffering from tension or irritability it is wiser to completely forego the meal or leave it to a more propitious moment. An undigested mass of food will not help the weight problem. Digestion cannot adequately take place when the system is fatigued or the emotions are interfering with, and altering, the character of the digestive juices.

REDUCING THE CHOLESTEROL LEVEL

Where there is a need to reduce the cholesterol level in the high protein diet, as in cases where weight is complicated with a heart condition, arterio-sclerosis or atherosclerosis, high blood

pressure, etc., not more than four eggs per week should appear in the diet. Fish should be used in preference to meat by all the above and at least once a day fish should be the protein food instead of meat twice a day. There is an automatic assumption, of course, that only lean meat is consumed; *all fat must be cut away and no food is ever fried*. In all cases, despite the butter allowance being small, low cholesterol margarine is actually better than butter.

The high protein diet can be employed by those unfortunate people whose obesity is further complicated by multiple sclerosis. It is not suggested that the high protein diet will cure multiple sclerosis, but it can normally be adopted. However, advice should be sought before attempting the plan.

RAW SALADS

Some people find raw salads difficult to digest. A simple way out of this difficulty is to prepare the salad as normal and then place it in a blender for one to two minutes. This will break down the salad into a semi-liquid state. Care must be taken to thoroughly insalivate the liquidized salad and eat it slowly.

CHAPTER EIGHT

HIGH PROTEIN – LOW CHOLESTEROL SEVEN-DAY PLAN

Day 1

Breakfast

Grilled mushrooms
and tomatoes
2 halves toast with fat-
free margarine
Brewer's yeast or
wheatgerm

Lunch

Orange or
pineapple slice
Salad with 2
slices lean chicken
2 crispbreads and
fat-free margarine

Dinner

Grapefruit
Steamed cod or
haddock
French or runner
beans
Sprouts or cauliflower
2 oz. (50g) cottage cheese
mixed with grapes

Day 2

Breakfast

2 oranges or 2 apples
2 thin slices wholemeal
toast with fat-free
margarine and a little
honey

Lunch

Orange or pineapple
slice
Salad with 3 oz. (75g)
cottage cheese
2 crispbreads and
fat-free margarine

Dinner

Grapefruit
Grilled or boiled
lamb
Grilled tomatoes
Spinach or other
greens
2 oz. (50g) plain yogurt wit
sliced cucumber
added

Day 3

Breakfast

Apple
Slice of pineapple
Grapefruit
2 oz. (50g) cottage
cheese

Lunch

Orange or pine-
apple slice
Salad
Baked potato with
sunflower oil

Dinner

Grapefruit
Steamed hake or
sole
Broccoli or cauliflower
2 crispbreads with
cottage cheese spread

Day 4*Breakfast*

Apple

Grilled tomatoes on toast, 2 crispbreads or extra slice toast and fat-free margarine

Dried apricots with wheatgerm

Lunch

Orange or pineapple

Salad with flaked fish in oil and onion and tomato slices

2 crispbreads with fat-free margarine

Dinner

Grapefruit

Casserole of veal or chicken with diced vegetables

Baked apple with cottage cheese centre

Day 5*Breakfast*

Apple

Mushrooms on toast with extra slice toast and fat-free margarine

Few soaked raisins with wheatgerm

Lunch

Orange or pineapple

Salad

3 oz. (75g) cottage cheese with 2 crispbreads

Dinner

Grapefruit

Steamed haddock or cod

Root vegetable

Spinach or french beans

2 oz. (50g) plain yogurt

Day 6*Breakfast*

Apple

Pineapple (dried) with wheatgerm

2 slices wholemeal toast and fat-free margarine

Lunch

Orange

Salad with hard-boiled egg

2 crispbread and fat-free margarine

Dinner

Grapefruit

Turkey or chicken or lean beef

Grilled tomatoes

Onions or leeks

2 oz. (50g) plain yogurt

Day 7*Breakfast*

Apple (grated) with wheatgerm

Orange

2 crispbreads with fat-free margarine

Lunch

Orange or pineapple

Salad with flaked fish in oil and onion and tomato slices

2 crispbreads with fat-free margarine

Dinner

Grapefruit

lean lamb or chicken slices

Aubergine or marrow

French beans or spinach

2 oz. (50g) plain yogurt

CHAPTER NINE

THE IMPORTANCE OF A BALANCED DIET

The success of any slimming method is dependent upon choosing the appropriate food materials, then ensuring that those foods are in balance and not taken to excess and, last but not least, that they are attractively served. Food should be enjoyed; slimming need not mean dreary repetition and the feeling of doing penance.

Balance in food does not just mean the maintenance of a correct acid-alkali ratio. In the case of the high protein diet this does, however, present some problems, although the extensive use of salads and fruit helps to achieve balance.

A high protein diet is meant to stimulate the metabolism so that superfluous weight is lost. One of the reasons for having hard boiled eggs in preference to any other form is that more calories are consumed in the digestion and assimilation of hard boiled eggs than those eggs actually contain. This is why the choosing of certain foods or food materials is important to the process.

EDIBLE SEAWEED

It is with this in mind that the addition of edible seaweed to the diet is recommended. The chief function of the thyroid gland is to produce a hormone, the main ingredient of which is thyroxine. Thyroxine stimulates and controls metabolism. Thyroxine, however, is dependent

upon an adequate supply of iodine for the control to be effective. A deficiency of iodine causes lethargy and obesity because the metabolic rate is lowered.

Edible seaweed is the richest source of natural iodine and is essential for the correct functioning and balance of the thyroid. In addition to its iodine content, seaweed contains more Vitamin C than oranges, plus Vitamins of the B group, Vitamins E and K and valuable mineral salts. Because it grows completely free from any of the artificial fertilizers or pesticides it is one of the few articles of food that have not suffered from modern cultivation. The danger of pollution from toxic wastes that are allowed to flow into the sea is minimal. The sea is vast, seaweed has a high degree of resistance and, where over-pollution exists, seaweed is not gathered.

People have been eating seaweed for years, though usually they are unaware of the fact. It is present in ice cream, cheese, meat pies and a hundred-and-one other common items of food which have a gelatinous or semi-gelatinous content. Unfortunately, though its use is widespread in the catering and food processing industries, it is not used in sufficient quantities to have any extensive therapeutic value. It is, however, used in pharmaceutical products, especially in laxative preparations.

Seaweed is recommended as a food supplement in tablet form for everyone, not just the obese.

NATURAL LAXATIVE

Apart from its iodine and vitamin and mineral content, seaweed is a natural laxative and has a

diuretic effect which helps to combat fluid retention. Seaweed also helps to heal inflamed mucous membrane and is particularly valuable to those whose weight problem is complicated by catarrh of any form. It is a natural product utilized to an extent undreamt of by most people.

Figures for the actual consumption of seaweed are very difficult to assess. Some 700,000 lb of edible seaweed was used in the U.S.A. in 1966. This was almost double the amount used in 1956 for the same purposes. Since that time, seaweed has come much more to the fore – particularly as a health food – both in America and Britain. The probability is that the figures have more than doubled since then. It should also be realized that seaweed is one of those foods that goes an extremely long way when it is used.

MOLASSES

Another food material which deserves particular attention is molasses. When sugar or sugar beet is processed to produce refined white sugar, all the vitamins, amino-acids and mineral salts are removed. These essential nutrients are concentrated in molasses. White sugar is 99.9% pure sucrose and has been correctly described as 'pure, white and deadly'.

The molasses from sugar cane is one of the most concentrated food products it is possible to purchase. The concentration of essential nutrients and its actual lower sugar content make it an invaluable health product. Molasses contains more natural iron than meat. Furthermore, the iron in molasses is more readily absorbed than that present in meat. It is

invaluable where some anaemia may be present.

Molasses is a low calorie sugar. One tablespoonful of molasses contains 43 calories. The same measure of honey has 62 calories, while that of white sugar contains 110 calories. Natural dark sugar (Barbados, Muscovado or Molasses) has a lower calorific value than refined white.

No one would pretend that molasses has the *sweetness* value of white sugar. It should, however, be used whenever possible, and should be taken as a supplement to ensure an adequate supply of vitamins and minerals in this age of 'artificial' food. Molasses, apart from its high iron content, is also laxative and healing.

WINTER SALADS

Where winter salads are concerned it is better to use the cheaper chopping cabbage – red or white – than lettuce grown under forced cultivation. If lettuce is home-grown in the winter months do not pull the whole lettuce. Detach some of the outer leaves (which contain more of the chlorophyll) and allow the plant to keep on growing.

Salads and vegetables are very much dependent upon what is in season. On the whole it is preferable to use foods in season rather than those that are forced, from both a health and financial angle. There is no point in paying more for a less nutritious food.

The recipes that follow are applicable in either the normal High Protein Diet Plan or in the High Protein – Low Cholesterol scheme. The savoury jellies make an ideal centre piece for a salad. The jelly, when set, should be placed on a bed of

lettuce, watercress or other green stuff and decorated with any of the colourful vegetables: cooked or raw beetroot, red or green pepper, slices of tomato, celery, raw carrot, sprigs of cauliflower, slices of onion or leek, radish, or whatever is in season. In this way they form a complete protein and salad meal ideal for use in the summer months. These seaweed jellies are one of the best ways of ensuring that the metabolism is correctly stimulated and that the thyroid gland is in balance.

Seaweed for culinary use as a *gelling* agent is available in any health food store. When it is being used for the preparation of sweet jellies, it is essential to use the stronger flavoured fruits, e.g. lemon and orange. This is demonstrated in the following recipes.

To some extent, the same reasoning applies to all the culinary arts, including the preparation of salads. Using the various herbs can promote health and enhance the flavour of all food without detracting from the main purpose of the preparations, i.e. that of losing weight. Herbs should be used in savoury dishes in preference to salt, which causes fluid retention and adds to the problems of obesity. Herbs like thyme, mint, chives, marjoram, garlic, basil and comfrey all have their own uses in health. Dandelions and nasturtiums should not be neglected. All the above will help rather than hinder the loss of weight desired.

RECIPE SECTION

SALAD RECIPES

RAW CABBAGE SALAD

Small Cabbage (red or green)
Cider Vinegar
Small Onion or Leek
Apple

Shred about a quarter of the cabbage, add a tablespoonful of cider vinegar, and allow to stand for three to four hours. Then slice the onion, coarsely grate the apple and add to the shredded cabbage, sprinkling with herbs to taste.

CARROT, CHEESE AND CELERY SALAD

Large Carrot
4 sticks Celery
1oz. (25g) Cottage Cheese
Orange
Green or Red Pepper
Cider Vinegar
Olive Oil

Grate the carrot, slice the celery, orange and pepper and serve with the cheese. Make a dressing from the cider vinegar and oil and use a tablespoonful on the salad.

PINEAPPLE SALAD

Pineapple slices or cubes
Green or Red Pepper
Small Beetroot
1oz. (25g) Cottage Cheese
Cauliflower
Cider Vinegar and Oil Dressing
Mint

Take two slices pineapple, or use cubes, slice up half the pepper, grate the beetroot, and serve with the cheese and about six sprigs of cauliflower, adding cider vinegar dressing mixed with chopped mint.

TOMATO AND FRENCH BEAN SALAD

2 large Tomatoes
1 cupful cooked French or Runner Beans
 $\frac{1}{2}$ Onion
 $\frac{1}{4}$ Cucumber
 $\frac{1}{4}$ Green or Red Pepper
Cider Vinegar and Oil dressing

Slice the tomatoes, onion, cucumber and pepper, add the cooked beans and mix with cider vinegar dressing.

GREEN SALAD

Lettuce or Endive
 Bunch Watercress
 4 Spring Onions
 $\frac{1}{2}$ Leek
 6 Radishes with Green tops
 Dandelion or Nasturtium leaves

Shred lettuce or endive, wash and separate watercress, slice leek, add onions, radishes and dandelion leaves and decorate with slices of lemon or orange.

BEETROOT SALAD

Medium-sized Beetroot
 Chives or Onions and Parsley
 Lettuce or Watercress
 Cottage Cheese
 Pineapple or Peach slices

Coarsely grate beetroot and mix with a tablespoonful of cider vinegar and a little oil. Add the chives or sliced onion and parsley. Lay mixture on a bed of lettuce or watercress and decorate with slices of pineapple or peach. Add cottage cheese topping.

CUCUMBER SALAD

$\frac{1}{3}$ Cucumber

1 tablespoonful Yogurt

Lemon juice

Green or Red Pepper, Chives or a smear of
Garlic and chopped Parsley

Lettuce, Endive or Watercress

Tomato

Cauliflower or Asparagus

Slice cucumber and mix with yogurt and lemon juice to taste. Add half pepper sliced, or chives or garlic and parsley, and serve on a layer of lettuce or watercress. Decorate with slices of tomato and sprigs of cauliflower or asparagus.

ROOT SALAD.

Medium-sized Carrot

Small Beetroot

Small Celeriac or Celery root

Parsley, Thyme and Mint

Tomato

Pineapple strips

Coarsely grate the roots and mix with cider vinegar and oil. Add Parsley, Thyme and mint. Mix and serve on a bed of sliced tomato and decorate with strips of pineapple.

WINTER SALAD

Cabbage
Small Onion
4 sticks Celery
Carrot
Cottage Cheese
Orange

Shred a quarter of cabbage, grate the carrot and chop onion and celery. Mix with cider vinegar and oil and decorate with slices of orange and small knobs of cottage cheese.

QUICK SALAD

Carrot
2 Tomatoes
Cauliflower
Green or Red Pepper
1 oz. (25g) Cottage Cheese

Cut carrot into strips, dice tomatoes and about half the pepper. Mix and add sprigs of cauliflower and the cottage cheese.

TOMATO AND ONION SALAD

2 Tomatoes
Onion
Cauliflower
Parsley

Slice tomatoes and place on a plate. Cover with thin onion rings and decorate with sprigs of raw cauliflower and chopped parsley. Cover with cider vinegar and sunflower oil dressing.

RAW MIXED SALAD

Carrot
Small Beetroot
Onion or Leek
Cabbage (red or white)
Apple or Orange
Radishes or Cauliflower

Coarsely grate the carrot and beetroot. Add sliced onion or leek and a little shredded cabbage. Mix together with cider vinegar and sunflower oil and decorate with slices of apple or orange, radishes or sprigs of cauliflower.

SAVOURY PROTEIN SALAD

Small Beetroot
 Green and Red Pepper
 Onion or Leek
 Hard-boiled Egg
 1 teaspoonful Parmesan Cheese
 Carrot
 Tomato
 Cauliflower

Cook and dice beetroot, slice pepper, cut onion or leek into rings, slice egg. Add cheese, mix together with cider vinegar and sunflower oil and decorate with thin strips of carrot, sliced tomatoes and sprigs of raw cauliflower.

SAVOURY SWEET SALAD

Small Leek
 Cabbage
 Orange
 10 Grapes
 Chicken or Ham
 Cottage Cheese
 Beetroot

Cut half leek into rings, shred about half a cupful of cabbage, slice orange and halve grapes. Mix with cider vinegar and sunflower oil and decorate with alternate pieces of chicken or ham, cottage cheese and raw or cooked beetroot.

SWEET SALAD

Cabbage

10 Grapes

Small Apple

6 Raisins

Orange or Pineapple

Tomato

Cottage Cheese

Shred about two tablespoonsful of raw cabbage. Slice grapes, coarsely grate apple, chop raisins. Mix together with cider vinegar and sunflower oil and decorate with slices of orange or pineapple, tomato and cottage cheese.

JELLY RECIPES

The following recipes are all for jellies based on a seaweed *Gelling Agent* which can be bought at any health food store. Seaweed is too valuable a natural agent for the health of the thyroid gland – and the metabolism – not to be used in a slimming diet. As a general rule, one teaspoonful of the seaweed preparation is used to half a pint of water, vegetable stock or fruit juice for the jelly, but it is necessary to mix up a paste first using about a tablespoonful of cold water.

TOMATO CHEESE JELLY

Gelling Agent

$\frac{1}{2}$ pt. (275ml) Tomato Juice

2 Tomatoes

Dessertspoonful Parmesan Cheese

Parsley, Chives and Horseradish

Prepare the jelly with a teaspoonful of gelling agent mixed to a smooth paste with a tablespoonful of cold water. Add the tomato juice and bring mixture to the boil, stirring until it gradually thickens. Cook for two minutes. Skin and peel the tomatoes and add these with the Parmesan cheese and flavour with parsley chives and a dash of horseradish. Pour into a jelly container and allow to cool for two to three hours.

TOMATO AND EGG JELLY

Gelling Agent

$\frac{1}{2}$ pt. (275ml) Tomato Juice

Tomato

Hard-boiled Egg

Onion or Leek

Green or Red Pepper

Herbs

Prepare the jelly as above. Add the tomato juice and bring to the boil. Cook for two minutes. Slice tomato, egg, onion and pepper, and add to mixture, having removed from heat, sprinkle in herbs to taste and put into a suitable container to set.

CHICKEN JELLY

Gelling Agent

Vegetable Stock

3 oz. (75g) sliced Chicken

Leek or Onion rings (raw)

Carrot strips (cooked)

Herbs to taste

Prepare jelly in usual way, and add to vegetable stock dissolved in $\frac{1}{2}$ pt. (275ml) water; bring to boil and cook for two minutes. Add the sliced chicken, thin rings of leek or onion, carrot strips and herbs to taste. Mix all together and pour into container to cool.

CELERY CHEESE JELLY

Gelling Agent

$\frac{1}{2}$ pt. (275ml) Vegetable Stock

Celery slices

Red or Green Pepper slices

Onion or Leek rings

Horseradish

Parmesan Cheese

Herbs to taste

Prepare jelly in usual way and add to vegetable stock. Bring to boil and cook for two minutes. Add slices of raw celery, red or green pepper and rings of onion or leek. Sprinkle with a little horseradish, a teaspoonful Parmesan and herbs to taste. Pour into a suitable container and leave for two to three hours to set.

BEETROOT JELLY

Gelling Agent

$\frac{1}{2}$ pt. (275ml) Beetroot Juice

3 oz. (75g) cooked Ham slices

Onion or Leek slices (raw)

Red or Green Pepper slices

Parsley (chopped)

Prepare jelly in usual way and add beetroot juice (this can be obtained from a health food store if you don't have a juice extractor). Bring to the boil and cook for two minutes. Remove from heat and add the sliced ham, onion, pepper and parsley. Pour into a container and allow to set.

ASPARAGUS JELLY

Gelling Agent

$\frac{1}{2}$ pt. (275ml) Vegetable Stock

Asparagus

Hard-boiled Egg rings

Prepare jelly in usual way and add vegetable stock. Bring to the boil and cook for two minutes. Spread asparagus over the bottom of a suitable container, add the egg rings, and pour in thickened stock. Allow to cool for two to three hours.

LEEK JELLY

Gelling Agent

$\frac{1}{2}$ pt. (275ml) Vegetable Stock

Medium-sized Leek

3 oz. (75g) diced Ham or Tongue

Herbs to taste

Prepare jelly in usual way adding $\frac{1}{2}$ pt. (275ml) vegetable stock: cooking for two minutes. Partly cook the leek and cut into thin rings – use very little water for this. Add the ham or tongue and herbs to taste. Add all this to the thickened stock and allow to cool for two to three hours.

PRAWN JELLY

Gelling Agent

$\frac{1}{2}$ pt (275ml) Vegetable or Fish Stock

6 to 8 Prawns (cooked)

Lemon Juice

Thyme or Marjoram

Prepare jelly in usual way adding vegetable or fish stock. Bring to boil and cook for two minutes. Add prawns, a little lemon juice and some thyme or marjoram. Pour into container and allow to set. This jelly may also be made with salmon, flaked cod or any other fish in place of prawns.

ORANGE JELLY

Gelling Agent

$\frac{1}{2}$ pt. (275ml) Orange Juice (unsweetened)

2 Medium-sized Oranges

Grapes

Molasses

Prepare jelly in usual way. Add the orange juice and bring mixture to boil, cooking for two minutes. Add the grated rind of one orange and the sections from both oranges, a few chopped grapes and one teaspoonful of molasses. Pour into jelly mould and allow to set.

PRUNE AND RAISIN JELLY

Gelling Agent

$\frac{1}{2}$ pt. (275ml) Apple Juice

5 Prunes (soaked or stewed)

Raisins

Grated Lemon Rind

Molasses

Prepare jelly in usual way. Add apple juice and cook for two minutes. Remove from heat and add prunes, raisins, lemon rind and a teaspoonful of molasses. Allow to cool for two to three hours.

APPLE JELLY

Gelling Agent

Large Bramley Apple

Honey

Grated Lemon Rind

Cinnamon

Stew the apple in sufficient water to produce $\frac{1}{2}$ pt. (275ml) of thick apple fluid when blended with the jelly. Bring to the boil and cook for two minutes. Add a little honey, grated lemon rind and cinnamon. Pour into a mould and allow to set.

FIG JELLY

Gelling Agent

$\frac{1}{2}$ pt. (275ml) Orange or Grapefruit Juice
(unsweetened)

6 Figs (uncooked)

Raisins

Grated Lemon Rind

Molasses

Prepare jelly in usual way, adding orange or grapefruit juice. Bring to the boil and cook for two minutes. Remove from heat and add the figs cut into thin slices, a few raisins and the grated lemon rind. Add a teaspoonful of molasses and leave to cool for two to three hours.

APRICOT JELLY

Gelling Agent

Dried Apricots

Honey

Lemon Rind

Molasses

Cook sufficient dried apricots to produce $\frac{1}{2}$ pt. (275ml) thick apricot fluid when blended with jelly mixture. Bring to the boil and cook for two minutes. Remove from heat and add a little honey, lemon rind and a teaspoonful of molasses. Pour into mould and leave to cool.

BLACKCURRANT JELLY

Gelling Agent

Blackcurrants

Blackcurrant juice

Honey

Grated Lemon or Orange Rind

Prepare jelly in usual way, adding barely $\frac{1}{2}$ pt. (275ml) mixed blackcurrants and blackcurrant juice. Bring to boil and cook for two minutes. Remove from heat and add a little honey and grated lemon or orange rind. Pour into mould and allow to set.

PEAR JELLY

Gelling Agent

Large Pear

Apple or Pineapple Juice

Grapes (chopped)

Lemon Rind

Prepare jelly in usual way. Cut the pear into sections. Dilute apple or pineapple juice to produce $\frac{1}{2}$ pt. (275ml). Stir the juice into the jelly, bring to the boil and cook for two minutes. Remove from heat, add the pear sections, chopped grapes and a little lemon rind. Pour into mould and leave until set.

MIXED FRUIT JELLY

Any Fresh Diced Fruit

Fruit Juice

Grated Lemon and Orange Rind

Prepare jelly in usual way. Use fresh fruit (diced) and fruit juice of your choice to make up $\frac{1}{2}$ pt. (275ml) of liquid. Add the grated lemon and orange. Bring the mixture gently to the boil and simmer for two to three minutes. Pour into mould and allow to cool for two to three hours.

BAKED APPLE

Large Bramley Apple

Raisins

Molasses

Wash and core the apple. Place a few raisins in the hole left by the core. Mix a teaspoonful of molasses with a little warm water, and bake the apple in the molasses water. Use a moderate oven and leave for 20 to 30 minutes.

BAKED GRAPEFRUIT

Grapefruit

Molasses

Slice a grapefruit in half and place a little molasses in the centre of each half. Bake under grill for five minutes before serving.

CONCLUSION

Obesity places health at risk. By forcing unnecessary burdens upon the heart, lungs and joints it limits activity and enjoyment of life. It also limits the life-span if it is not corrected in time. Obesity, therefore, is a very real problem.

Success in conquering obesity is dependent upon reducing food intake till weight is normalized. Any slimming diet, therefore, which compels loss of weight, should be a temporary state of affairs. This is no less the case with the high protein diet which, as previously stated, is *essentially a cosmetic slimming method and is not intended for general use*. Within its limits it serves a very useful purpose for the younger and more active type of obese person.

When the superfluous weight has been shed the realities of nutrition have to be studied so that obesity is never again a problem.

One of the benefits of a slimming diet is that important lessons of discipline in eating are acquired. Efficient mastication proves that smaller meals, when thoroughly chewed, provide more energy than large masses of unmasticated food. This lesson alone is invaluable.

Balance in diet is essential to balance in the body. Real vital health and normality in weight is dependent upon a balanced diet which avoids excesses of any type. As a temporary measure the high protein diet is effective and safe for the

average under-forty-five age group. Those over that age, especially those who are afflicted with rheumatism, should avoid it or reduce the protein intake in the diet.

In normal circumstances balance in diet is best achieved with the formulae previously outlined:

Protein	10 per cent
Carbohydrates	20 per cent
Fats	5 per cent
Fruit and vegetables (50 per cent raw)	5 per cent

The 10 per cent protein intake is exceeded in the high protein diet. Over a period, excessive quantities of protein will produce an excess of acids in the system – especially uric acid. As age increases and physical activity decreases, the ability to eliminate excess acids decreases. There is a risk, therefore, that the older person will build up an intolerable amount of acids during the high protein diet and increase the incidence of rheumatism and allied complaints.

The younger person, whose activity and ability to eliminate the excess acids is not impaired, can benefit from the high protein diet and lose the necessary amount of weight. Once that object has been achieved, however, a balanced diet should be adopted and, providing excesses are avoided, obesity should never again present a problem.

The calorie requirement of the particular age and sex in relation to the normal amount of energy used in work and activity must always be considered. In the balanced diet, however, the high calorie foods – especially the refined carbohydrate group – are eliminated. The

balanced diet also contains a preponderance of the low calorie and alkaline foods which are more or less a guarantee of a stabilized and normal weight and, of course, improved health.

DIET PLAN FOR SLIMMERS ...

Lack of exercise in this age of the car, allied to the common habit of over-feeding, produces obesity in children - which means that the necessity to lose weight begins at an even earlier age.

This book provides a seven-day high protein diet plan which, if followed faithfully, could result in a weight loss of ten pounds within one week.

High protein diet is popular with would-be slimmers because it allows a fairly liberal choice of foods; and meals need never be dull. But few writers on high protein diet heed the warning given here by Alan Moyle - that it is essential to maintain a high alkaline content to offset the acidity of protein foods.

The recipes given here not only produce tasty and nutritious dishes; they eliminate health hazards for the slimmer. For example, there are special salads designed for those who require a low cholesterol intake, while the attractive jelly recipes based on a seaweed gelling agent will ensure a healthy thyroid gland.

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